COUNTING ROOM TECHNICIAN
JOB PERFORMANCE MEASURE

TASK CODE: CRT-C02

TASK: Perform the Gamma Spectroscopy Quality Control Checks

NAME: _____ **SSN**: _____

REFERENCES:

1. WP 12-RL1330, Gamma Spectral System Operation
2. WP 12-RL1320, Radiochemistry Laboratory Source Control

TERMINAL OBJECTIVE:

Given an gamma spectroscopy system, perform the quality control checks per WP 12RL1330.

CONSEQUENCES OF INADEQUATE PERFORMANCE:

Improper sample analysis
Component damage

HAZARDS (PERSONNEL/EQUIPMENT STATUS):

None

PRE-REQUISITE TRAINING/ TASK COMPLETION:

1. CF 3.00 Series
2. CRT-A12, Manage Samples

TOOLS/EQUIPMENT (MATERIALS REQUIRED):

1. Canberra Gamma Spectroscopy Germainium Detector Counting System
2. System Logbook
3. Radioactive Sources

Instructions to Trainee: You shall acquire the necessary references and equipment, and complete all required documentation. Knowledge requirements shall be completed with 80% or greater accuracy. Critical step performance shall be completed with 100% accuracy.

Instructions to JPM Evaluator: The trainee is to perform the terminal objective, without assistance, on the job site. Provide clarification of requirements if requested by the trainee. You are encouraged to ask relevant questions to verify trainee understanding. If the trainee fails this JPM, clearly document the reason for failure and forward to the trainee's manager. Successful completion of this JPM shall be recorded on the trainee's qualification card.

KNOWLEDGE REQUIREMENTS:

Reference	Knowledge Requirement	Pass/Fail
2	State the precautions associated with handling radioactive sources.	
1	Describe the information that must be logged in the system logbook.	
1	State how to determine if the gamma spectral system is currently calibrated.	
1	State the purpose of a Calibration Quality Control Check	
1	State the purpose of a Background Quality Control Check	
1	Discuss the documentation requirements upon completion of the quality control checks.	
1	State the required actions if the gamma spectral system does not pass either of the quality control checks	
1	State how voltage should be applied to the detector.	
1	State how to determine if the detectors are at operating temperature.	

PERFORMANCE REQUIREMENTS:

Reference	Performance Requirement	Pass/Fail
2	Obtain and check out the required radioactive source.#	
1	Verify the gamma spectral system is currently calibrated.#	
1	Operate the VAX computer and establish initial conditions for performing the calibration quality control check.#	

1	Perform the calibration quality control check.#	
1	Document the completion of the calibration quality control check.#	
Reference	Performance Requirement	Pass/Fail
1	Operate the VAX computer and establish initial conditions for performing the background quality control check.#	
1	Perform the background quality control check.#	
1	Document the completion of the background quality control check.#	
2	Return and check in the radioactive source to the proper storage location.#	

# indicates a critical step

FINAL EVALUATION: PASS FAIL

COMMENTS:

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EVALUATOR SIGNATURE: _____ **DATE**:_____

TRAINEE SIGNATURE: _____ **DATE**:_____

MANAGER SIGNATURE: _____ **DATE**:_____